

ADDENDUM NO. 1

ISSUED BY: *Great River Associates*
2826 S Ingram Mill Road
Springfield, Missouri 65804
(417) 886-7171
(417) 886-7591 --- FAX

DATE: February 5, 2014

FOR: **OZARK COUNTY BRIDGE REPLACEMENT**
BRIDGE 01500251
GRA NO. 13-3136

The attached revisions hereby supersede any and all data with which they may conflict as indicated on the Drawings, Specifications and related documents issued in the original set. Each trade is responsible for changes in its work caused by changes in the work of other trades. This addendum is a part of and shall be attached to the original set of plans and specifications for the work.

This addendum is issued due to the change in slab beam dimensions, from 27" to 23". The sheets below have been revised for the 23" beam.

ITEM 1

On the Bid Form, the Reinforcing Steel (Substructure) quantities has changed to 4,981 lbs. Use the attached revised bid form.

Sheet C4

On the Construction Plans sheet C4, under bridge quantities reinforcing steel (substructure) has changed to 4,981 lbs.

Sheet C8

On the Construction Plans sheet C8, the bottom of cap elevation has changed to 778.04 and the bottom of wall elevation has changed to 771.33

Sheet S1

On the Construction Plans page s1, the elevation of Top of Pile has changed to 779.54, the bottom of pile cap has changed to 778.04, the elevation of the top of wing wall is 781.29, and the elevation of the crown of the cap is 781.29.

Sheet S2

On the Construction Plans sheet S2, elevations have changed.

Sheet S5

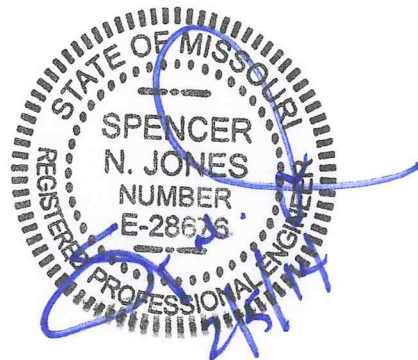
On the Construction Plans sheet S5, threaded rod has changed.

Sheet S6

On the Construction Plans sheet S6, the dimension of the slab beam have changed to 1'-11" and stirrup dimensions have changed.

Sheet S7

On the Construction Plans sheet S7, the Bill of Reinforcing has changed.



Ozark County
 Bridge # 01500251
 BRO B-077(009)



Itemized Bid Form for Contractor

LINE	ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT
ROADWAY ITEMS						
1	310	8" CONCRETE ROAD AND APPROACH	S.Y.	137		\$ -
2	616	MOVEABLE BARRICADES	EA.	4		\$ -
3	616	CONSTRUCTION SIGNS	EA.	4		\$ -
4	806	EROSION CONTROL FENCE OR SOCK	L.F.	454		\$ -
5	611	TYPE II ROCK BLANKET	C.Y.	1,068		\$ -
BRIDGE ITEMS						
6	618	MOBILIZATION	L.S.	1		\$ -
7	206	EXCAVATION FOR STRUCTURE - UNCLAS	L.S.	1		\$ -
8	702	STRUCTURAL STEEL PILING (HP10x42)	L.F.	243		\$ -
9	705	PRECAST CONCRETE SLAB BEAMS	EA.	16		\$ -
10	706	REINFORCING STEEL (SUBSTRUCTURE)	LBS.	4,981		\$ -
11	703	CLASS B1 CONCRETE	C.Y.	48.9		\$ -
12	716	BEARING PADS	L.F.	96		\$ -
13	701	PRE-BORE	L.F.	62		\$ -
TOTAL CONTRACT						\$ -

WORK BY LOCAL FORCES

ROADWAY QUANTITIES		
ITEM	TOTAL	UNITS
CLEARING AND GRUBBING	1	L.S.
EXCAVATION FOR ROADWAY-UNCLASSIFIED	329	C.Y.
EMBANKMENT IN PLACE W/ COMPACTION	1,473	C.Y.
5" AGGREGATE ROAD SURFACE	1,053	S.Y.
FERTILIZING AND SEEDING	0.30	ACRES
TYPE I MULCH	0.30	ACRES
BERM (TEMPORARY TYPE II ROCK BLANKET)	291	L.F.
DITCH CHECK	2	EA.
TREE PROTECTION FENCING	100	L.F.
OBJECT MARKERS	4	EA.
FENCE	194	L.F.

BRIDGE QUANTITIES				
ITEM	SUBSTRUCTURE	SUPERSTRUCTURE	TOTAL	UNIT
REMOVAL OF EXISTING STRUCTURE	—	—	1	L.S.

WORK BY CONTRACTOR

ROADWAY QUANTITIES		
ITEM	TOTAL	UNITS
8" CONCRETE ROAD AND APPROACH	137	S.Y.
TYPE 2 ROCK BLANKET	1,068	C.Y.
MOVEABLE BARRICADES	4	EACH
CONSTRUCTION SIGNS	4	EACH
EROSION CONTROL FENCE OR SOCK	454	L.F.

BRIDGE QUANTITIES				
ITEM	SUBSTRUCTURE	SUPERSTRUCTURE	TOTAL	UNIT
MOBILIZATION	—	—	1	L.S.
EXCAVATION FOR STRUCTURE-UNCLASSIFIED	—	—	1	L.S.
PRECAST CONCRETE SLAB BEAMS	—	16	16	EACH
BEARING PADS	—	96	96	L.F.
REINFORCING STEEL (SUBSTRUCTURE)	4,981	—	4,981	LBS.
CLASS B1 CONCRETE (SUBSTRUCTURE)	48.90	—	48.90	C.Y.
PRE-BORE	62	—	62	L.F.
STRUCTURAL STEEL PILING	243	—	243	L.F.

PILE DATA				
BENT NO.		1	2	3
BEARING PILE	PILE TYPE AND SIZE	HP10x42	HP10x42	HP10x42
	NUMBER	6	4	6
	APPROXIMATE LENGTH (FT.)	17.21	17.21	11.71
	DESIGN BEARING (TONS)	79	79	79
	HAMMER ENERGY REQUIRED (FT.-LBS.)	17696	17696	17696
	PREBORE (FT.)	-	-	10.21
	ESTIMATED TOP ELEVATION	779.21	779.21	779.21
	ESTIMATED TIP ELEVATION	762.00	762.00	767.50

1. ALL PILES SHALL BE DRIVEN TO PRACTICAL REFUSAL.
2. MANUFACTURED PILE POINT REINFORCEMENT SHALL BE USED ON ALL PILES IN THIS STRUCTURE. COST WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.

HYDRAULIC SUMMARY DATA TABLE	
DESIGN FLOOD DATA	
DRAINAGE AREA	31.16 - SQ. MI.
DESIGN FREQUENCY	10 -YR
DESIGN DISCHARGE	7,004 - CFS
DESIGN HIGH WATER ELEVATION AT STRUCTURE	781.59 - FEET
100 YEAR DISCHARGE	14,355 - CFS
100 YEAR HIGH WATER ELEVATION AT STRUCTURE	785.29 - FEET
100 YEAR BACKWATER	0.41 - FEET
APPROACH ROADWAY OVERTOPPING FREQUENCY	10 - YR.

BRO-B077 (009)

STATE OF MISSOURI

REGISTERED PROFESSIONAL ENGINEER

SPENCER N. JONES

NUMBER E-28676

Spencer N Jones
MO# PE-28676

GRA

GREAT RIVER ASSOCIATES

205 S. WISCONSIN AVE., SUITE 200, SPRINGFIELD, MO 65804

PHONE (417) 867-7111 FAX (417) 867-7581

www.gra-engineers.com

Great River Associates, Inc. is a Missouri State Certified Professional Engineering Firm. License No. 00114176, Landscape Architecture, 2007013873

No.	Revision/Issue	Date
△	REVD. PER SLAB BEAM DEPTH	04-05-14
△		
△		
△		
△		
△		

CO. RD. JJ-920 BRIDGE OVER LITTLE NORTH FORK WHITE RIVER

OZARK COUNTY, MISSOURI

BRIDGE QUANTITIES

Copyright © 2013 by
Great River Associates, Inc.

CHECKED BY: SJ

DRAWN BY: KFT

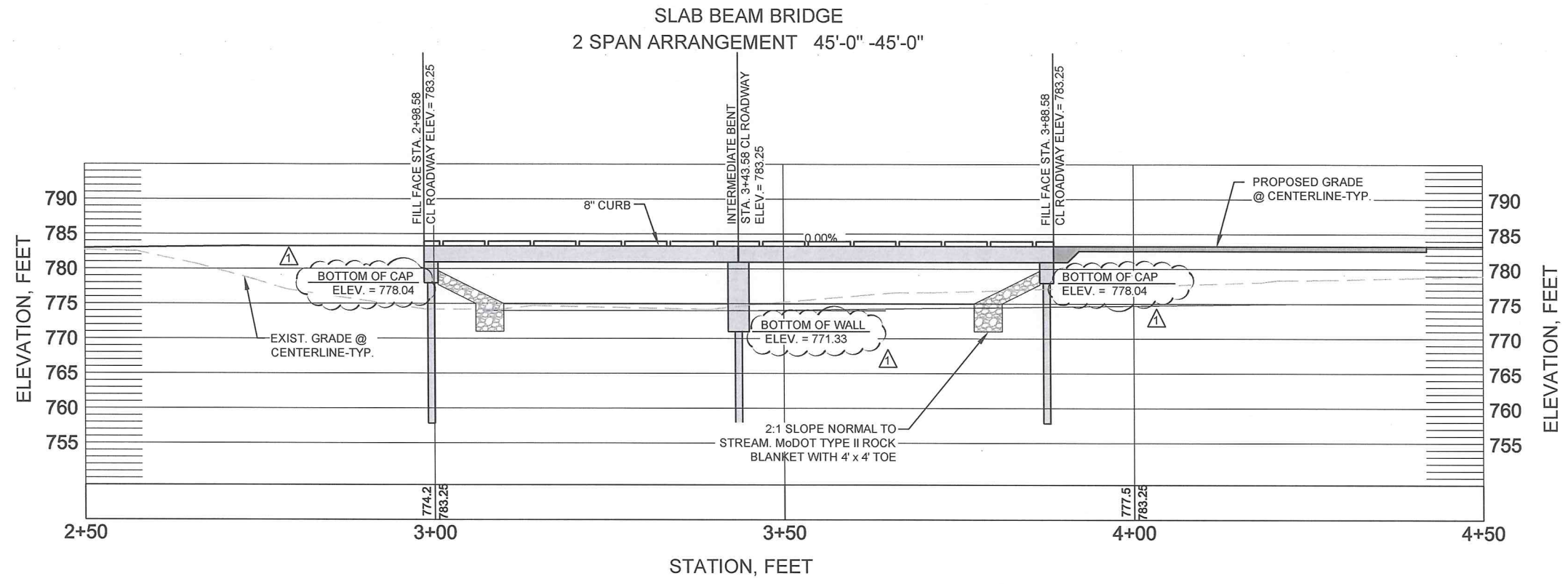
JOB NUMBER: 12-3136

FILE NAME: 12-3136_CIVILDWG

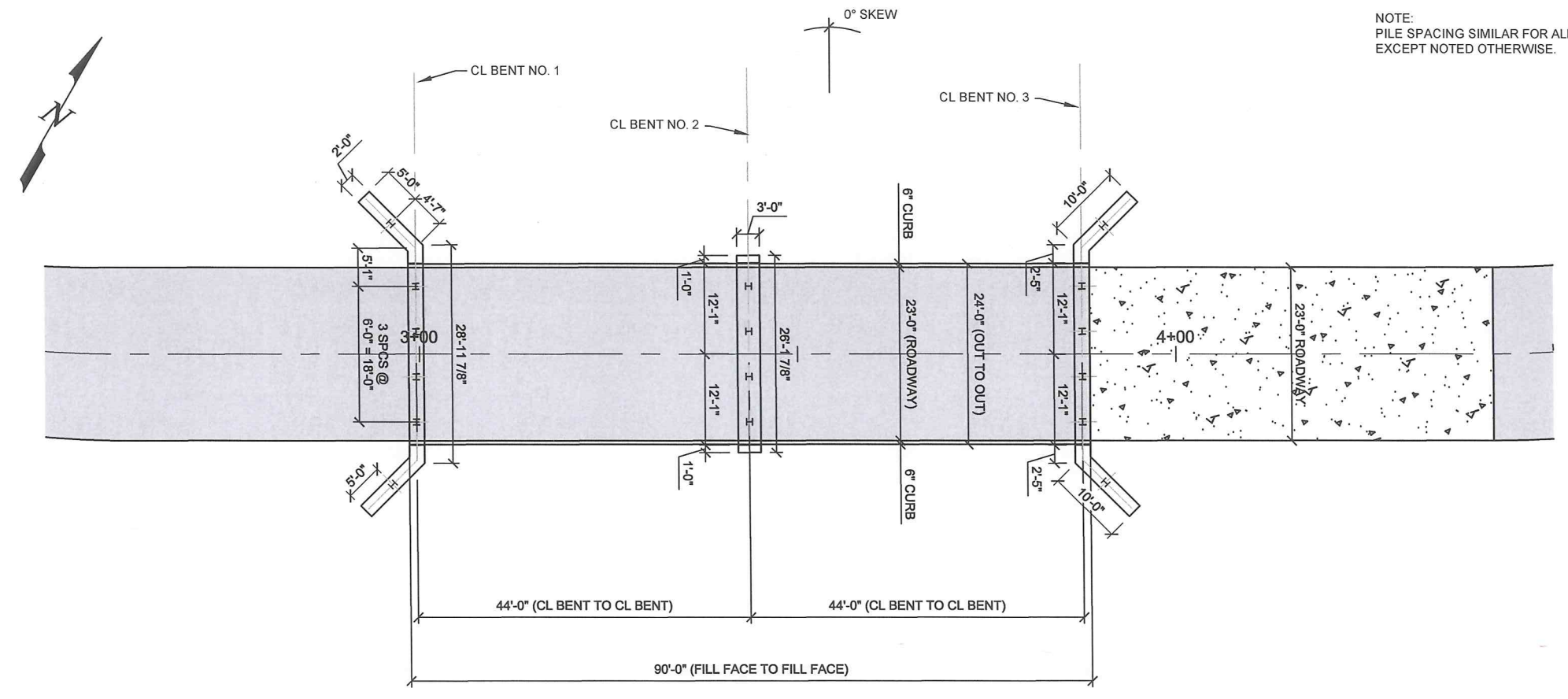
SCALE: NTS

ISSUE DATE: 10-03-2013

SHEET NUMBER:
C4



GENERAL ELEVATION
ALONG CENTERLINE OF ROADWAY
1"=20' HOR. 1"=20' VERT.



PLAN VIEW
SCALE: 1"=20'

BRO-B077 (009)

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
SPENCER N. JONES
NUMBER E-28676

Spencer N Jones
MO# PE-28676

GREAT RIVER ASSOCIATES, INC.

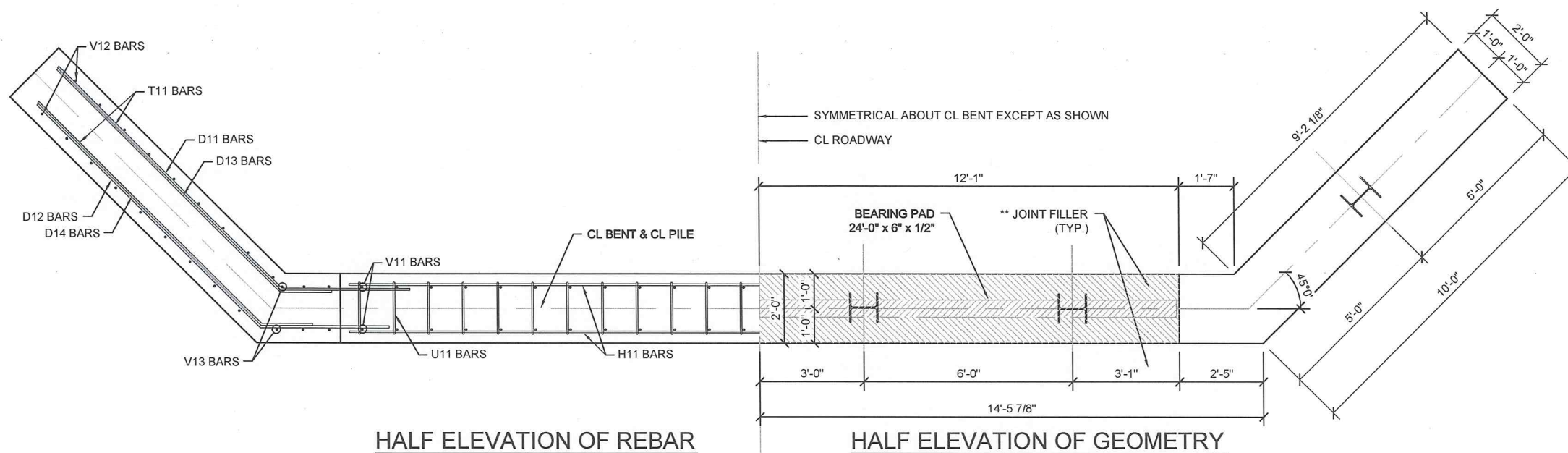
No.	Revision/Issue	Date
1	REV'D. PER SLAB BEAM DEPTH	04-05-14
2		
3		
4		
5		

CO. RD. JJ-920 BRIDGE OVER LITTLE NORTH FORK WHITE RIVER
OZARK COUNTY, MISSOURI

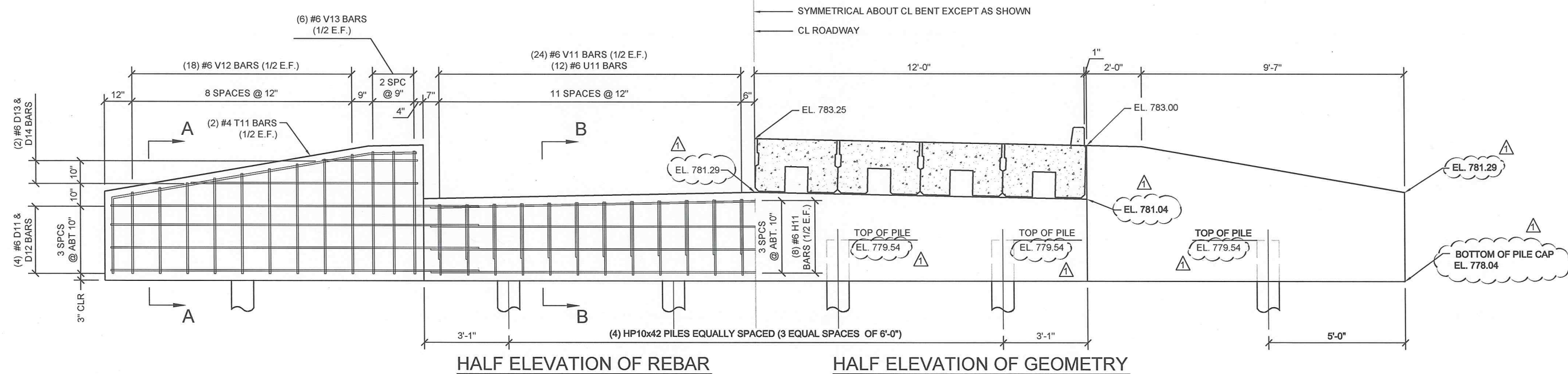
ONE TO ONE

CHECKED BY: SJ
DRAWN BY: KFT
JOB NUMBER: 12-3136
FILE NAME: 12-3136_CIVIL.DWG
SCALE: NOTED
ISSUE DATE: 10-03-2013
SHEET NUMBER: C8

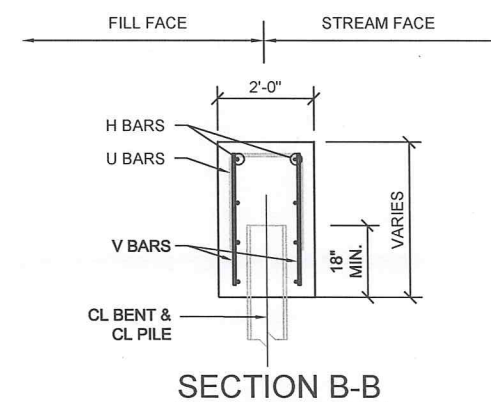
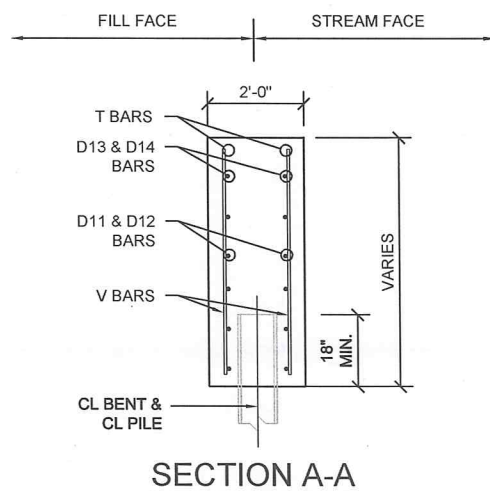
Copyright © 2013 by Great River Associates, Inc.



END BENT PLAN VIEW
(DIMENSIONS ALONG CL OF BENT UNLESS OTHERWISE NOTED)



END BENT ELEVATION VIEW
(DIMENSIONS ALONG CL OF BENT UNLESS OTHERWISE NOTED)
(WINGWALLS SHOWN STRAIGHT FOR CLARITY)



NOTE:
THIS DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

BRO-B077 (009)

STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
SPENCER N. JONES
NUMBER E-28676

Spencer N Jones
MO# PE-28676

GRA GREAT RIVER ASSOCIATES

205 S. HIGHWAY 100, SUITE 100, JAY, MO 64484
PHONE: (417) 886-7521 FAX: (417) 886-7521
www.gra-associates.com

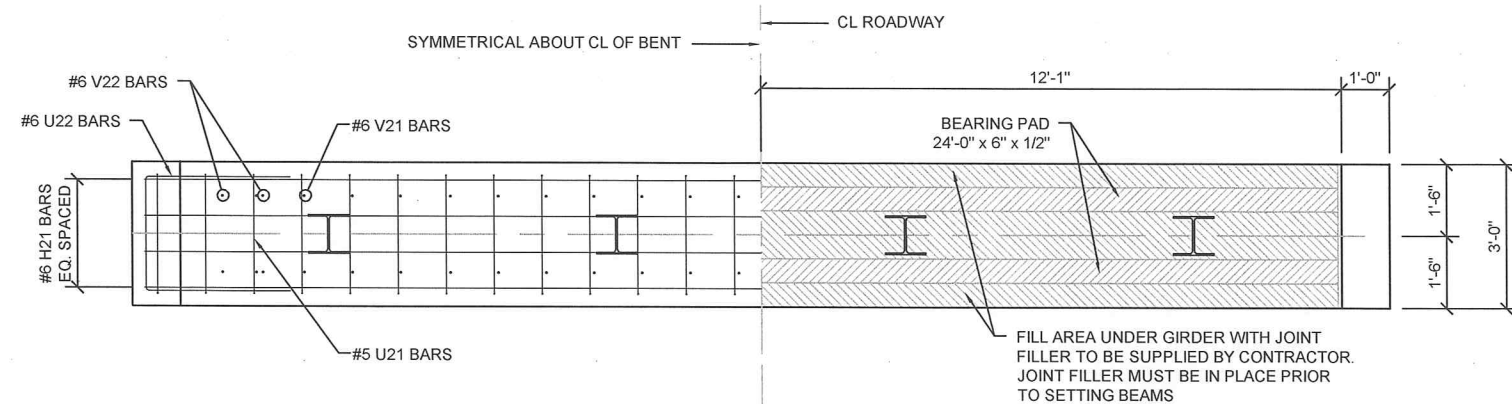
Great River Associates, Inc. Missouri State Certificate of Professional Engineer Number: 2001-1474
Landscaping Architecture: 2007015873

No.	Revision/Issue	Date
1	REV'D. PER SLAB BEAM DEPTH	04-05-14
2		
3		
4		
5		

CO. RD. JJ-920 BRIDGE OVER LITTLE NORTH FORK WHITE RIVER
OZARK COUNTY, MISSOURI

END BENT DETAILS

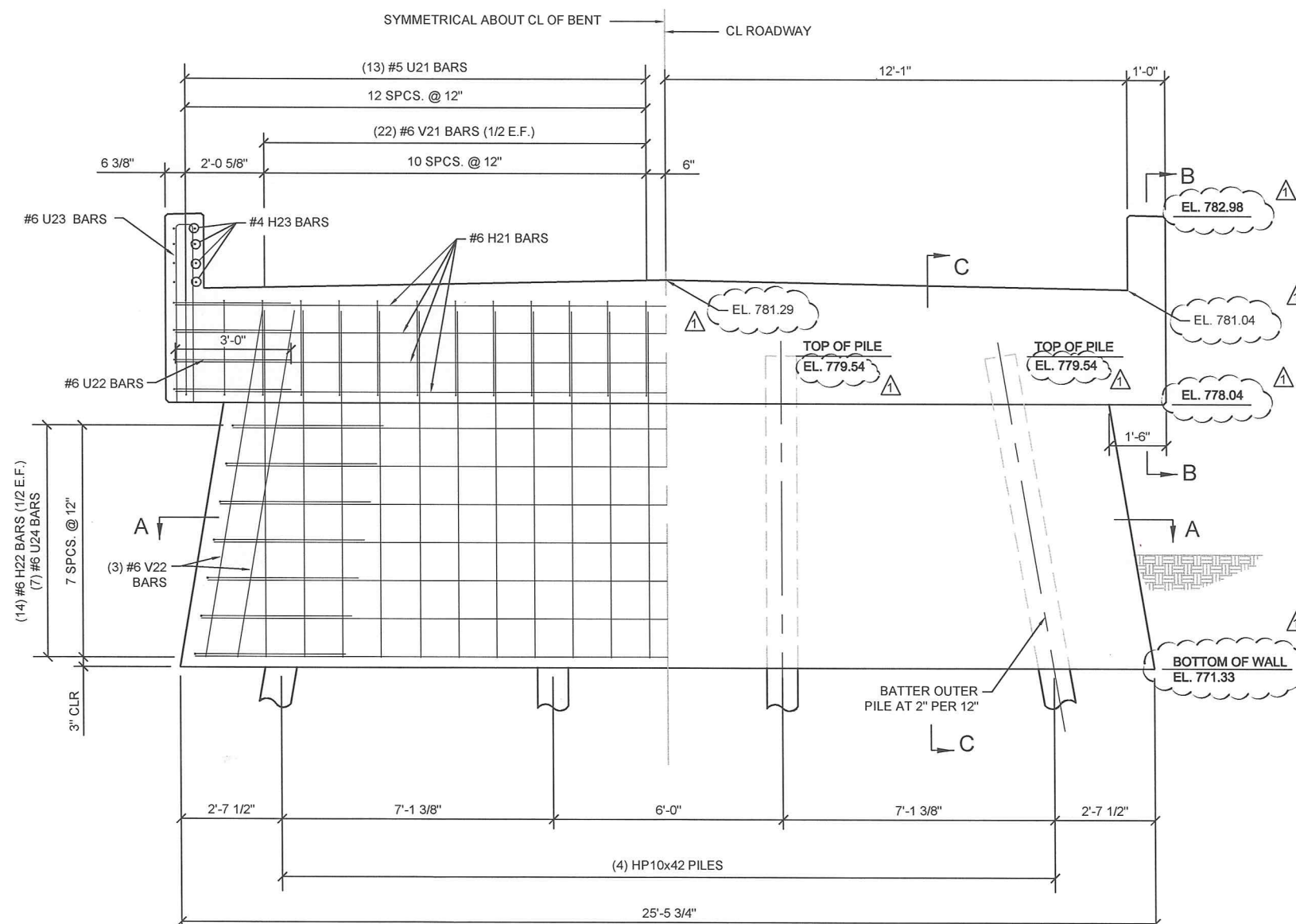
CHECKED BY: SJ
DRAWN BY: KFT
JOB NUMBER: 12-3136
FILE NAME: 12-3136_Structural
SCALE: NTS
ISSUE DATE: 10-03-2013
SHEET NUMBER: **S1**



HALF REINFORCING

HALF GEOMETRY

INTERMEDIATE BENT PLAN VIEW
(DIMENSIONS ALONG CL OF BENT UNLESS OTHERWISE NOTED)



HALF REINFORCING

HALF GEOMETRY

INTERMEDIATE BENT ELEVATION VIEW
(DIMENSIONS ALONG CL OF BENT UNLESS OTHERWISE NOTED)

NOTES:

1. ALL U-BARS IN END BENT TO BE PLACED PARALLEL TO CL ROADWAY. THE BOTTOM LEG OF #5 U21 BARS MAY BE CUT WHEN NECESSARY TO CLEAR PILES.
2. E.F. = EACH FACE

NOTE:
THIS DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.



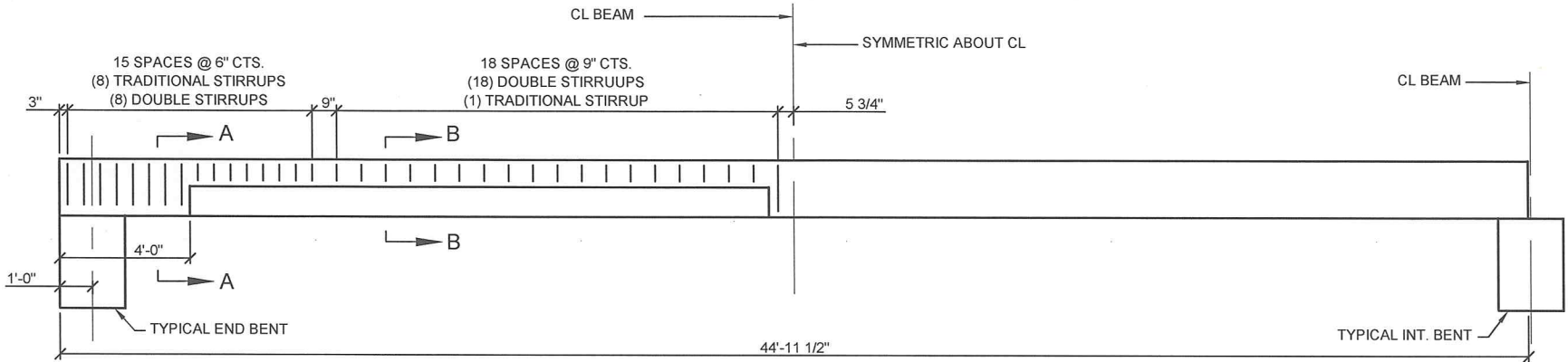
No.	Revision/Issue	Date
1	REV'D. PER SLAB BEAM DEPTH	04-05-14
2		
3		
4		
5		

CO. RD. JJ-920 BRIDGE OVER LITTLE NORTH FORK WHITE RIVER
OZARK COUNTY, MISSOURI
INTERMEDIATE BENT DETAILS

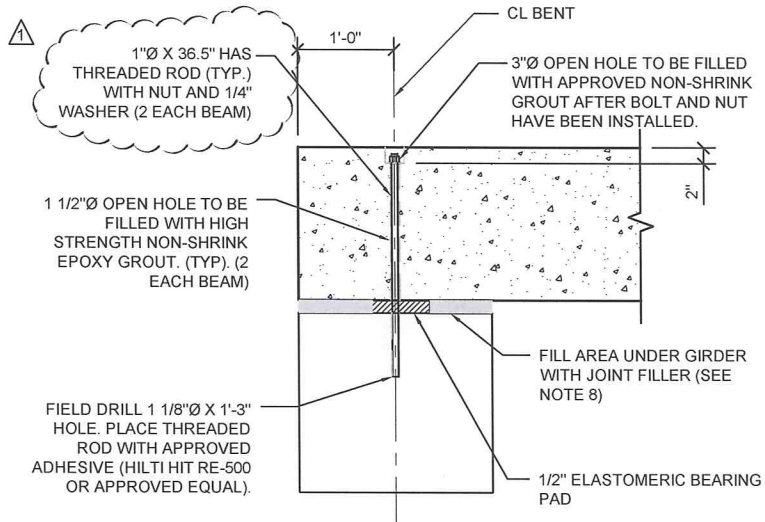
CHECKED BY: SJ
DRAWN BY: KFT
JOB NUMBER: 12-3136
FILE NAME: 12-3136_Structural
SCALE: NTS
ISSUE DATE: 10-03-2013
SHEET NUMBER:

S2

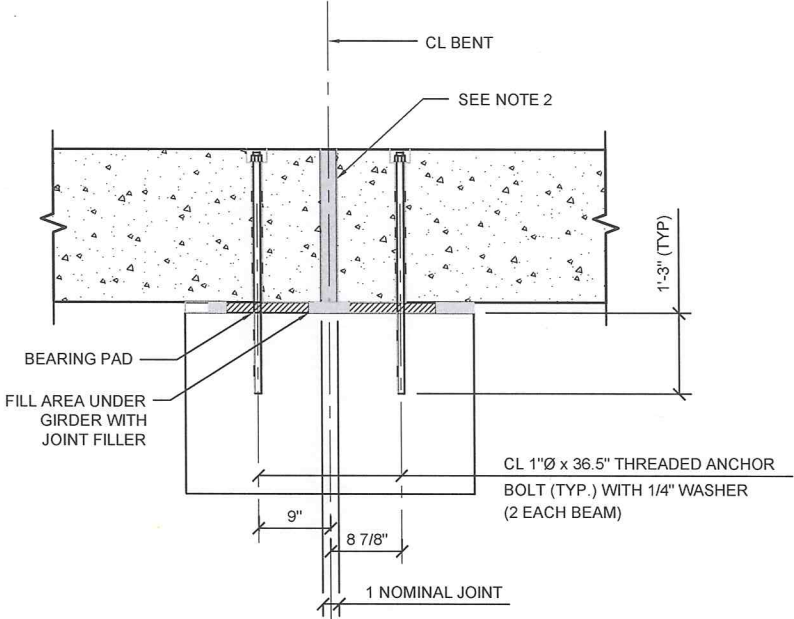
NOTE:
1. USE DAYTON/RICHMOND D-4 HEX COUPLING NUT FOR CONNECTING 1"Ø THREADED RODS.
ALTERNATE APPROVED TRANSVERSE TIE RODS OF INCREASED SEGMENTAL LENGTH ARE ACCEPTABLE,
INCLUDING 1 CONTINUOUS TIE ROD THROUGH ALL DECK BEAMS.



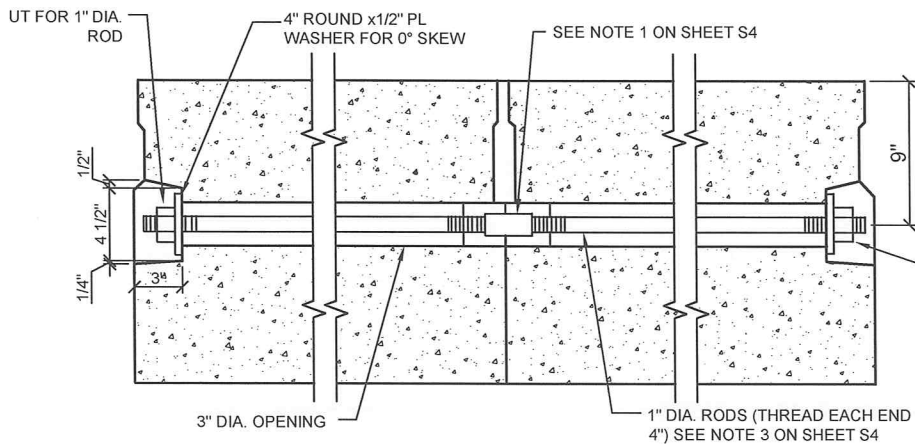
STIRRUP SPACING DETAIL



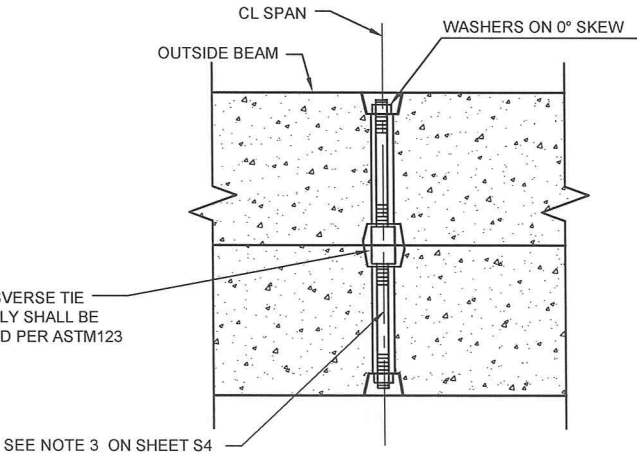
SECTION AT ABUTMENTS
(ALONG CL BEAMS)



SECTION AT PIERS
(ALONG CL BEAMS)



SECTION ALONG TRANSVERSE TIE ASSEMBLY



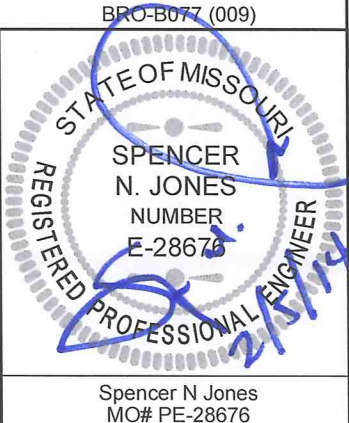
TRANSVERSE TIE ASSEMBLY PARTIAL PLAN
(D=0°)

NOTE:
THIS DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.

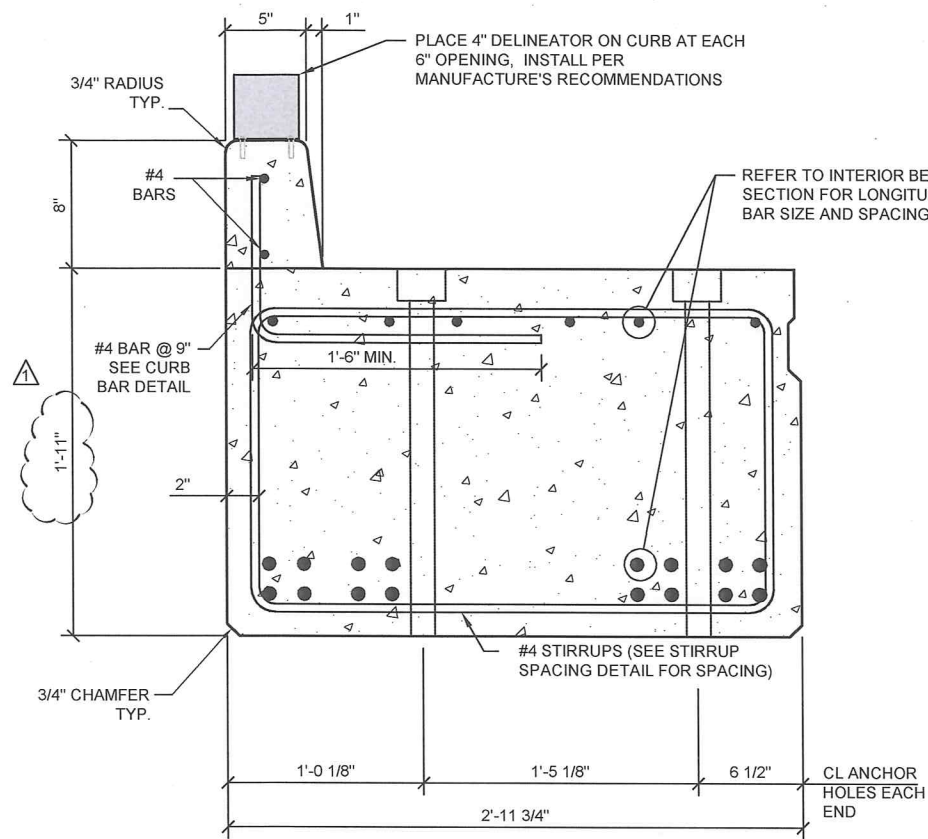


Revision/Issue	Date	Rev'd. PER SLAB BEAM DEPTH
No.		
1	04-05-14	
2		
3		
4		
5		

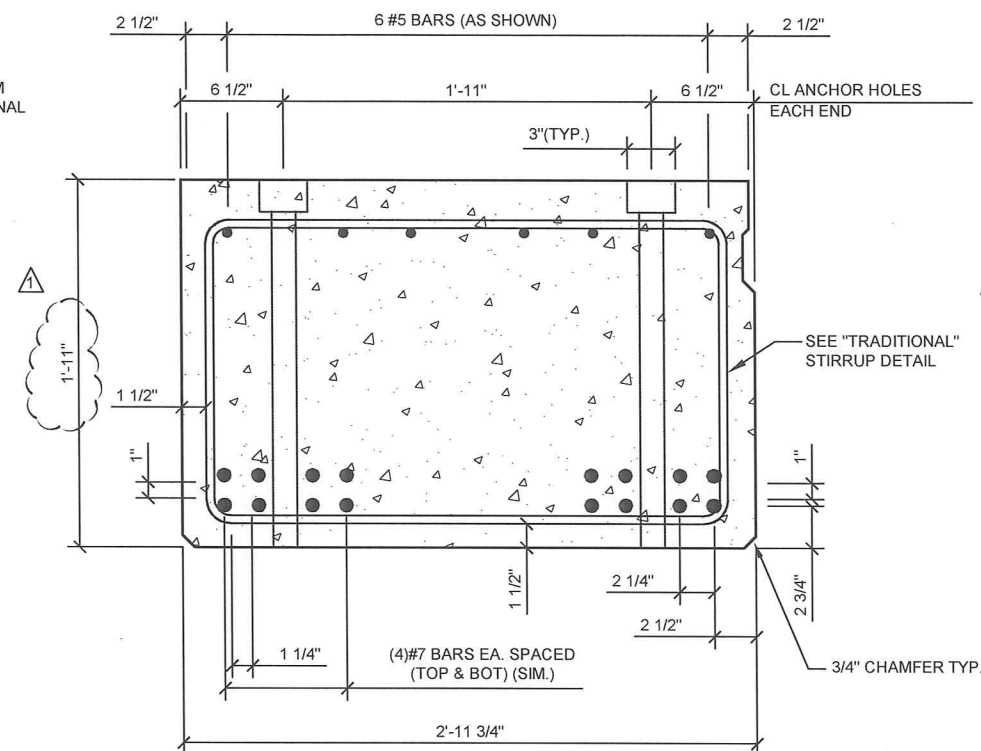
CO. RD. JJ-920 BRIDGE OVER LITTLE NORTH FORK WHITE RIVER
OZARK COUNTY, MISSOURI
SLAB BEAM DETAILS



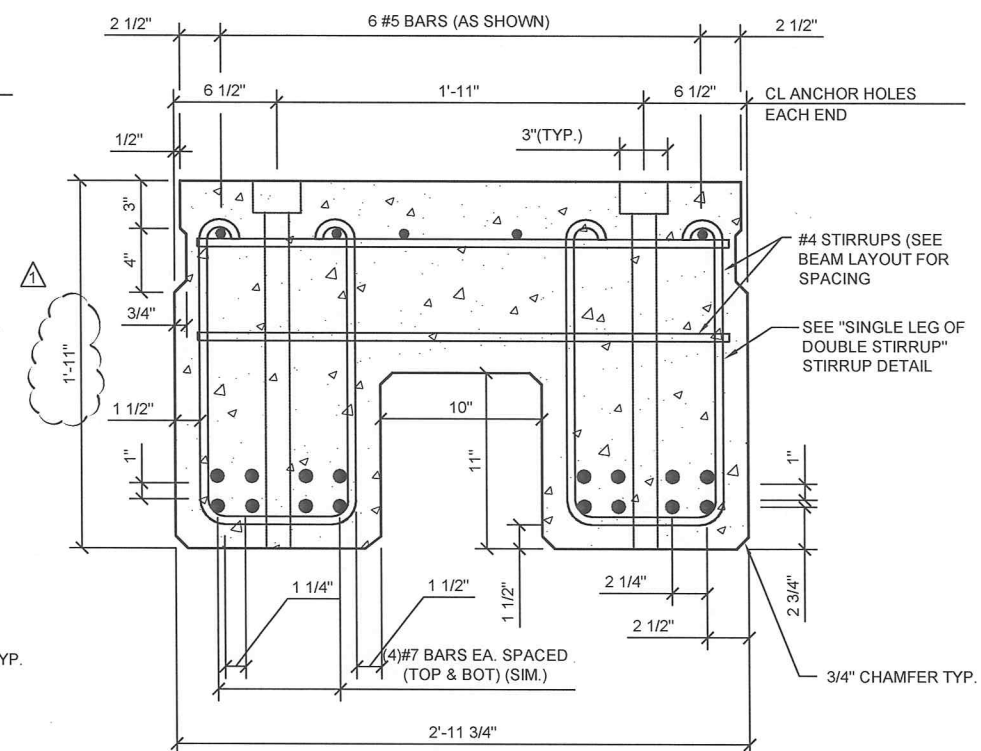
CHECKED BY: SJ
DRAWN BY: KFT
JOB NUMBER: 12-3136
FILE NAME: 12-3136_Structural
SCALE: NTS
ISSUE DATE: 10-03-2013
SHEET NUMBER: S5



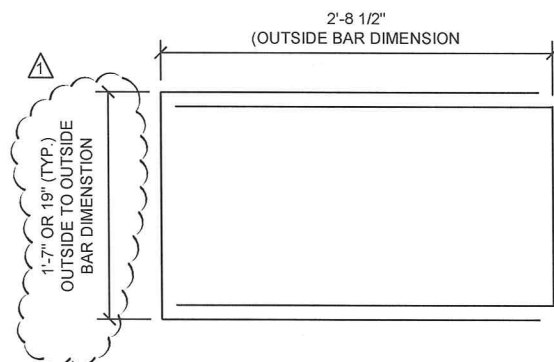
SECTION A-A (TYP.)
(EXTERIOR BEAM WITH CURB ONLY)



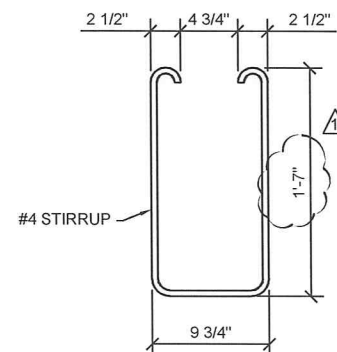
SECTION A-A (TYP.)



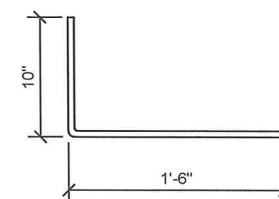
SECTION B-B (TYP.)
(INTERIOR BEAM)



"TRADITIONAL" STIRRUP DETAIL



DOUBLE STIRRUP DETAIL
(SINGLE LEG OF DOUBLE STIRRUP)



CURB
STIRRUP DETAIL

NOTE:
THIS DRAWING NOT TO SCALE. FOLLOW DIMENSIONS.



GRA GREAT RIVER ASSOCIATES 208 S. WASH. AVE. SUITE 100, SPRINGFIELD, MO 65804 PHONE: (417) 886-7171 FAX: (417) 886-7591 www.graonline.com		Great River Associates, Inc. - Missouri State Certificate of Authority Number: 0000000000 Engineering and Architectural Services License Number: 0000000000	
Date	04-05-14	Revision/Issue	
REVD. PER	SLAB BEAM DEPTH	No.	
CO. RD. JJ-920 BRIDGE OVER LITTLE NORTH FORK WHITE RIVER OZARK COUNTY, MISSOURI SLAB BEAM DETAILS		Copyright © 2013 by Great River Associates, Inc.	
CHECKED BY: SJ DRAWN BY: KFT JOB NUMBER: 12-3136 FILE NAME: 12-3136_Structural SCALE: NTS ISSUE DATE: 10-03-2013 SHEET NUMBER:		S6	

COMPLETE BILL OF REINFORCING STEEL

	NO. REQ'D.	MARK NO.		LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS												LENGTH		WEIGHT		
		B									C		D		E		F		H		K						
		SIZE	MARK								FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.
ABUTMENT #1	48	6	V11	CAP		20	S	X			2	6.00										2	6	181			
	36	6	V12	WINGWALL		20	S	X	VS	4	2	11.00										2	11	0			
				INC=2.13in			S	X	VL	4	4	4.00										4	4	197			
	12	6	V13	WINGWALL		20	S	X			4	6.00										4	6	82			
	8	6	H11	CAP		20		X			23	8.00										23	8	285			
	8	6	D11	WINGWALL		15		X			0	0.00	9	0.00	3	8.00	2	10.00	2	10.00	0	0.00	0	0.00	12	8	153
	8	6	D12	WINGWALL		15		X			0	0.00	9	0.00	3	8.00	3	2.00	3	2.00	0	0.00	0	0.00	12	8	153
	2	6	D13	WINGWALL		15		X	VS	1	0	0.00	2	11.00	1	4.00	0	11.00	0	11.00	0	0.00	0	0.00	4	3	0
				INC=0.00in				X	VL	1	0	0.00	6	11.00	1	4.00	0	11.00	0	11.00	0	0.00	0	0.00	8	3	19
	2	6	D14	WINGWALL		15		X	VS	1	0	0.00	3	7.00	2	0.00	1	6.00	1	6.00	0	0.00	0	0.00	5	7	0
				INC=0.00in				X	VL	1	0	0.00	7	7.00	2	0.00	1	6.00	1	6.00	0	0.00	0	0.00	9	7	23
	4	4	T11	WINGWALL		25		X			2	9.00	9	6.75	1	8.50					1	11.50	9	4.25	14	0	38
24	6	U11	CAP		10	S	X			0	0.00	2	0.00	1	6.00	0	0.00					5	6	199			
ABUTMENT #2	44	6	V21	WALL		20		X			9	1.00										9	1	601			
	6	6	V22	WALL		20		X			9	2.00										9	2	83			
	9	6	H21	CAP		20		X			25	8.00										25	8	347			
	14	6	H22	WALL		20		X	VS	2	22	8.00										22	8	0			
				INC=4.00in				X	VL	2	24	8.00										24	8	498			
	16	4	H23	CAP		18		X			2	6.00										3	6	38			
	26	5	U21	CAP		13		X			2	6.00	2	5.00	2	6.00	2	5.00				10	9	292			
	8	6	U22	CAP		10		X			0	0.00	3	0.00	2	4.00	0	0.00				8	4	101			
	12	6	U23	CAP		10		X			0	0.00	4	6.00	0	3.00	0	0.00				9	3	167			
	14	6	U24	WALL		7		X			3	11.00	1	4.50								9	3	194			
ABUTMENT #3	48	6	V31	CAP		20	S	X			2	6.00										2	6	181			
	36	6	V32	WINGWALL		20	S	X	VS	4	2	11.00										2	11	0			
				INC=2.13in			S	X	VL	4	4	4.00										4	4	197			
	12	6	V33	WINGWALL		20	S	X			4	6.00										4	6	82			
	8	6	H31	CAP		20		X			23	8.00										23	8	285			
	8	6	D31	WINGWALL		15		X			0	0.00	9	0.00	3	8.00	2	10.00	2	10.00	0	0.00	0	0.00	12	8	153
	8	6	D32	WINGWALL		15		X			0	0.00	9	0.00	3	8.00	3	2.00	3	2.00	0	0.00	0	0.00	12	8	153
	2	6	D33	WINGWALL		15		X	VS	1	0	0.00	2	11.00	1	4.00	0	11.00	0	11.00	0	0.00	0	0.00	4	3	0
				INC=0.00in				X	VL	1	0	0.00	6	11.00	1	4.00	0	11.00	0	11.00	0	0.00	0	0.00	8	3	19
	2	6	D34	WINGWALL		15		X	VS	1	0	0.00	3	7.00	2	0.00	1	6.00	1	6.00	0	0.00	0	0.00	5	7	0
				INC=0.00in				X	VL	1	0	0.00	7	7.00	2	0.00	1	6.00	1	6.00	0	0.00	0	0.00	9	7	23
	4	4	T31	WINGWALL		25		X			2	9.00	9	6.75	1	8.50					1	11.50	9	4.25	14	0	38
	24	6	U31	CAP		10	S	X			0	0.00	2	0.00	1	6.00	0	0.00					5	6	199		
SUPERSTRUCTURE WEIGHT:																						0					
SUBSTRUCTURE WEIGHT:																						4,981					
TOTAL WEIGHT:																						4,981					

SUPERSTRUCTURE WEIGHT: 0
SUBSTRUCTURE WEIGHT: 4,981

TOTAL WEIGHT: 4,981



CO. RD. JJ-920 BRIDGE OVER LITTLE NORTH FORK WHITE RIVER
OZARK COUNTY, MISSOURI

BILL OF REINFORCING



No.	Revision/Issue	Date
1	REV'D. PER SLAB BEAM DEPTH	04-05-14
2		
3		
4		
5		

CHECKED BY: SJ
DRAWN BY: KFT
JOB NUMBER: 12-3136
FILE NAME: 12-3136_Structural
SCALE: NTS
ISSUE DATE: 10-03-2013
SHEET NUMBER:

S7